[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0805; Product Identifier 2017-NM-051-AD; Amendment 39-19235; AD 2018-07-04]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) airplanes, Model MD-88 airplanes, and Model MD-90-30 airplanes. This AD was prompted by a report of loss of airspeed indication due to icing. This AD requires modifying the air data heat (ADH) system. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet https://www.myboeingfleet.com. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines,

WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0805.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0805; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Eric Igama, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5388; fax: 562-627-5210; email: roderick.igama@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) airplanes, Model MD-88 airplanes, and Model MD-90-30 airplanes. The NPRM published in the Federal Register on August 25, 2017 (82 FR 40505). The NPRM was prompted by a report of loss of airspeed indication due to icing. The NPRM proposed to require modifying the ADH system. We are issuing this AD to prevent operation of unheated air data sensors in icing conditions. Failure to activate the ADH system in icing conditions could result in

irregular airspeed or altitude indications, which could possibly result in a runway overrun during a high speed rejected takeoff (RTO) due to failure to rotate before the end of the runway, or a stall/overspeed during flight.

Comments

We gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

Support for the NPRM

Boeing and the Air Line Pilots Association, International (ALPA) expressed support for the NPRM.

Request to Allow the Use of Alternative Ground Terminal Locations

Delta Airlines (DAL) requested that we revise the proposed AD to allow alternative ground terminal locations for certain wires. DAL noted that, during prototype testing, it was unable to relocate ground wire 2EB292B20N or ground wire 1EB292B20N to certain ground termination points because those points were already full of existing wires. DAL noted that Boeing Alert Service Bulletin MD90-30A031, dated June 2, 2017, specifies locating ground wires in specific ground termination points, and that action is required for compliance (RC). DAL suggested that varied wiring configurations on Model MD-90 airplanes would lead it to make multiple requests for alternative methods of compliance (AMOCs), which could require additional out-of-service time for the affected airplanes. For this reason, DAL requested that we add language allowing the use of alternative ground terminal locations as specified in standard wiring practices manual (SWPM) chapter 20 and Boeing Service Request (SR) concurrence that provide an equivalent level of safety.

We disagree with the commenter's request. If an airplane has a different wiring or ground termination configuration than that identified in Boeing Alert Service Bulletin

MD90-30A031, dated June 2, 2017, an operator must request an AMOC in accordance with the procedures specified in paragraph (j) of this AD. We have not changed this AD in this regard.

Request to Extend the Compliance Times

DAL requested that the compliance times specified in paragraphs (g)(1) and (g)(2) of the proposed AD (within 28 months after the effective date of this AD and within 27 months after the effective date of this AD, respectively) be extended by 6 months. DAL noted that the actions required by this AD would have to be done outside of regularly scheduled heavy maintenance checks. DAL stated that Boeing is providing a lead time of 174 days to procure the needed kits. For these reasons, DAL requested that the compliance time be extended by 6 months for both Model MD-88 and MD-90 airplanes.

We disagree with the commenter's request. We confirmed with Boeing that the lead time for kit procurement will be 75-90 days, with some components already available, not 174 days as suggested by DAL. If an operator needs additional time to comply with this AD, they may request an AMOC in accordance with the procedures specified in paragraph (j) of this AD. We have not changed this AD in this regard.

Changes to Paragraph (i) of This AD

We have clarified the language of paragraph (i) of this AD. Paragraph (i) of the proposed AD would have allowed for the operation of the airplane even if the modified ADH system is inoperable, so long as the Master Minimum Equipment List (MMEL) and the operator's Minimum Equipment List (MEL) have a provision to allow for this inoperability. The FAA has revised paragraph (i) of this AD to make it clear that, if there is a provision in the operator's MEL that allows for the modified ADH system to be inoperable then the operator can operate the airplane with an inoperable modified ADH system. We have removed the references to the MMEL because it is unnecessary to

reference the MMEL, as operators are required in 14 CFR part 91 to have an MEL to operate with inoperable equipment and a provision cannot be in an MEL without first being part of the MMEL. The intent of the provision has not changed.

Conclusion

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this final rule with the change described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that the change will not increase the economic burden on any operator or increase the scope of this final rule.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin MD80-30A132, dated April 28, 2017; and Boeing Alert Service Bulletin MD90-30A031, dated June 2, 2017. This service information describes procedures for modifying the ADH system so that it activates when the left and right fuel switches are in the ON position. These documents are distinct since they apply to different airplane models. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 553 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Modification, MD-80 Group 1, 84 airplanes	56 work-hours X $85 per hour = $4,760	$4,459	$9,219	$774,396
Modification, MD-80 Group 2, 11 airplanes	57 work-hours X $85 per hour = $4,845	$11,014	$15,859	$174,449
Modification, MD-80 Group 3, 336 airplanes	57 work-hours X $85 per hour = $4,845	$8,589	$13,434	$4,513,824
Modification, MD-80 Group 4, 1 airplane	56 work-hours X $85 per hour = $4,760	$4,479	$9,239	$9,239
Modification, MD-80 Group 5, 37 airplanes	57 work-hours X $85 per hour = $4,845	$11,034	$15,879	$587,523
Modification, MD-90 Group 1, 84 airplanes	37 work-hours X $85 per hour = $3,145	$4,395	$7,540	$633,360

We have received no definitive data that would enable us to provide cost estimates for doing the modification on Model MD-80 Group 6 airplanes.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2018-07-04 The Boeing Company: Amendment 39-19235; Docket No. FAA-2017-0805; Product Identifier 2017-NM-051-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) airplanes, Model MD-88 airplanes, and Model MD-90-30 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 30, Ice and rain protection.

(e) Unsafe Condition

This AD was prompted by a report of loss of airspeed indication due to icing. We are issuing this AD to prevent operation of unheated air data sensors in icing conditions. Failure to activate the air data heat (ADH) system in icing conditions could result in irregular airspeed or altitude indications, which could possibly result in a runway overrun during a high speed rejected takeoff (RTO) due to failure to rotate before the end of the runway, or a stall/overspeed during flight.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD: Do all applicable actions identified as "RC" (required for compliance) in, and in accordance with, the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-30A132, dated April 28, 2017; or Boeing Alert Service Bulletin MD90-30A031, dated June 2, 2017; as applicable; except as required by paragraph (h) of this AD.

(1) For Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and Model MD-88 airplanes: Within 28 months after the effective date of this AD.

(2) For Model MD-90-30 airplanes: Within 27 months after the effective date of this AD.

(h) Exception to Certain Service Information Specifications

Where Boeing Alert Service Bulletin MD80-30A132, dated April 28, 2017, specifies contacting Boeing, and specifies that action as "RC" (Required for Compliance): This AD requires using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(i) Minimum Equipment List (MEL)

In the event that the ADH system as modified by this AD is inoperable, an airplane may be operated as specified in the operator's MEL, provided provisions that address the modified ADH system are included in the MEL.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO Branch, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Except as required by paragraph (h) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (j)(4)(i) and (j)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is

labeled “RC Exempt,” then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(k) Related Information

For more information about this AD, contact Eric Igama, Aerospace Engineer, Systems and Equipment Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5388; fax: 562-627-5210; email: roderick.igama@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Service Bulletin MD80-30A132, dated April 28, 2017.

(ii) Boeing Alert Service Bulletin MD90-30A031, dated June 2, 2017.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminster Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet https://www.myboeingfleet.com.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Des Moines, Washington, on March 20, 2018.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.
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